DOCUMENT RESUME

ED 278 088 EA 019 047

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TITLE The Long-Term Effects of the Pupil Progression Policy on Academic Achievement.
PUB DATE 86
NOTE 21p.; Paper presented at the Annual Meeting of the American Educational Research Association (67th, San Francisco, CA, April 16-20, 1986).
PUB TYPE Speeches/Conference Papers (150) -- Reports - Research/Technical (143)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Academic Achievement; Elementary Education; Longitudinal Studies; *Needs Assessment; Research Needs; *Student Development; *Student Evaluation; *Student Improvement; Student Needs; *Student Promotion; Student Reaction; Student School Relationship
IDENTIFIERS California Achievement Tests; Normal Curve Equivalent Scores; Pupil Progression Policy

ABSTRACT

In response to the increased movement toward competency-based education, a large urban southeastern school system implemented a Pupil Progression Policy in the 1980-81 school year. This paper reports on the results of a 5-year longitudinal study of the policy's effect on the academic achievement of retained and promoted students who entered first grade the year the policy took effect. Data included school system records of California Achievement Tests (CAT) and normal curve equivalent (NCE) reading and mathematics scores. Results showed that (1) students' overall academic achievement improved over the testing period; (2) 34 percent of all students were retained one or more times; (3) promoted students obtained higher mean NCE scores than retained students; (4) the lower scores of retained students remained lower over the testing period, though some gains did occur; and (5) grade retention plus Chapter I remedial instruction resulted in academic growth. Implications of the study are that a policy which causes the retention of 34 percent of 3,313 students needs to be revised. Suggestions include making provisions for individual differences, improved preschool and kindergarten programs, and a review of pedagogical considerations. Further research needs to focus on retention's effects on students' social adjustment and self-concept. Ten tables are included. (IW)

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THE LONG-TERM EFFECTS OF THE PUPIL PROGRESSION POLICY ON ACADEMIC ACHIEVEMENT

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Division of Curriculum and Research Services
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Atlanta Public Schools

Paper Presentation of the Annual Meeting of the American Educational Research Association
San Francisco, 1986

EA 019 047

THE LONG-TERM EFFECTS OF THE PUPIL PROGRESSION POLICY ON ACADEMIC ACHIEVEMENT

INTRODUCTION

In today's society, there is an increased movement toward competency-based education. Local school systems and state departments of education are instituting progression requirements which result in larger percentages of students being retained. A review of the literature on the effects of pupil retention provides no clear-cut answers. The data are contradictory and inconclusive. Kerzner (1982) found that retention was most beneficial academically to students in the first, second, and third grades. Although retention at other grades was beneficial, the resulting benefits were not as great. Holmes (1983) reported that, overall, retained students fall behind the first year of retention and spend the rest of their academic careers attempting to catch up. Niklason (1984) reviewed school retention practices and concluded that retention did not benefit the academic achievement nor the personal social adjustment of students. In view of the available data on the issue of pupil retention, it appears that local school systems should examine the effects of school policy on students in order to determine if policies enhance or mitigate against the maximum development of student potential.

Since the implementation of the Pupil Progression Policy in a large urban southeastern school system, approximately 17 percent of the students in the first grade have been retained each year, with decreasing percentages at each higher grade level. Approximately 5 percent of the students in grades 1 through 5 have been retained two or more times. Retained students have been provided with peer and/or adult tutors and enrolled in the Chapter I Program for remedial instruction in reading and/or mathematics. This investigation represents a longitudinal examination of the policy's effect on the academic achievement of students entering first grade in the 1980-81 school year, over the first five years that the policy has been in effect. It was designed to determine the status of achievement and progression in the system, and to provide data for policy-making and educational programming.

Overview of the Pupil Progression Policy

This school system implemented a Pupil Progression Policy in the 1980-81 school year, which covered only first grade students. The policy was designed to phase in an additional grade level for each successive year. By the 1984-85 school year, all students in grades 1 through 5 were covered by this Pupil Progression Policy. This policy was instituted as a part of the school system's move toward a competency-based instructional program.

Briefly, the plan of progression was based on the expectation that the vast majority of pupils who receive appropriate instruction and motivation will make satisfactory progress through the various levels of instruction. It was expected that the average pupil would achieve a level of academic proficiency and emotional development which would enable them to benefit from individualized instructional programs for pupils of their age level. For a variety of reasons, some individuals may require more or less than the usual amount of time to develop their educational potential. Therefore, this policy was developed to provide each pupil with the maximum opportunity to succeed in school.

The progression of students from one grade level to the next is based upon the fulfillment of specific standards. Mastery of minimum reading and mathematics skills

along with the completion of a prescribed basal reader, based on end-of-level tests and the teacher's professional judgement, are used as indicators for progression to the next grade level. The minimum reading and mathematics requirements are listed below.

Minimum Progression Requirements

Grade Level	Reading	Mathematics
1	24 Reading Skills Basal Level 1 - Primer	18 Mathematics Skills
2	22 Reading Skills Basal Level - 2[1]	17 Mathematics Skills
3	20 Reading Skills Basal Level - 3[1]	17 Mathematics Skills
4	17 Reading Skills Basal Level - 3[2]	24 Mathematics Skills
5	20 Reading Skills Basal Level - 4	22 Mathematics Skills

Students who do not master minimum reading and mathematics skills and do not achieve the prescribed reading level by the end of the school year are retained in the same grade. Administrative placement of students to the next higher grade level is available in certain cases, after review and approval by the next higher administrative authority. Students enrolled in the Program for Exceptional Children must meet the minimum progression requirements, with the exception of the moderately and severely mentally handicapped, unless the minimum requirements are documented as inappropriate.

Students who are retained receive top priority for available resources. They are placed in the Chapter I reading and/or mathematics program. They receive an educational assessment by local school personnel and if conditions warrant, a psychological evaluation. Peer and adult tutoring is available within the school setting. In addition, parents are notified of their child's academic weakness and are encouraged to participate in their educational development. In 1985-86 a pupil profile was developed for all retained students, highlighting prior academic achievement, strengths and weaknesses, and any medical or social factors which may impinge upon pupil progress. Based upon data in the pupil profile and teacher recommendations, an individualized educational plan is developed for each retained student.

Objectives

This study was designed to examine the effects of the implementation of the Pupil Progression Policy on the academic achievement of retained and promoted students over a five-year time period. Specific questions which were examined in this investigation included the following:

1. Did the academic achievement of students in this school system improve over the first five years that the Pupil Progression Policy was in effect?

2. What was the progression status of students covered by the Pupil Progression over the first five years that the policy has been in effect?

3. Was the academic achievement of promoted students significantly higher than that of retained students?

4. Was there a grade level at which retention resulted in greater academic growth as measured by the CAT?

5. Did participation in the Chapter I remedial program, along with another year of regular classroom instruction result in improved academic achievement?

Method

The California Achievement Tests (CAT) were administered to students in grades K-12 in the spring of each school year. The total reading and total mathematics normal curve equivalents (NCE) on the CAT over the period of 1981 through 1985 were used in this study. The data source was school system records of CAT performance over the five-year time span.

The subjects included in this study were all students who entered first grade in 1980-81, remained in the school system for five consecutive years, were not enrolled in the Program for Exceptional Children (with the exception of speech and language), and for whom CAT scores were available one or more times over this five-year period. The number of subjects for whom CAT scores were available ranged from 3,313 to 3,327 because of missing scores in one or more years.

The design of the study was longitudinal, and the data analysis included descriptive comparisons based upon means and standard deviations and t test analyses.

RESULTS

The results of this investigation are presented in order for each of the objective questions.

1. Did the academic achievement of subjects significantly improve over a five-year time period?

The results of the spring testing program for the school system indicated that in 1980-81, 33 percent of students tested in grades K through 11 scored at or above the national norm on the CAT. This performance was highest at the kindergarten level and decreased at each higher grade level. Two measures of improved academic achievement were sustaining high scores obtained in the lower grades over time and raising the percentage of students scoring at or above the national norm at each grade level. Table 1 presents the percentage of students scoring at or above the national norm from 1981 through 1985 in reading and mathematics. This indicated that at every grade level covered by the Pupil Progression Policy, a higher percentage of students scored at or above the national norm than students not covered by the Pupil Progression Policy. Table 2 presents the mean NCE and standard deviations on the CAT in reading and mathematics for subjects who entered

TABLE 1

CALIFORNIA ACHIEVEMENT TESTS
PERCENTAGE SCORING AT OR
ABOVE THE NATIONAL NORM
1981-85

	Reading					Mathematics				
	% At or Above National					% At or Above National				
	'81	'82	'83	'84	'85	'81	'82	'83	'84	'85
K	70	74	77	78	78	62	71	76	77	78
1	67	71	71	74	75	60	78	80	80	84
2	49	61	62	66	71	53	70	73	78	83
3	41	47	56	59	63	51	56	66	72	73
4	43	48	49	66	63	49	53	50	72	71
5	43	48	48	52	70	48	52	52	57	76
6	36	40	41	42	50	45	48	52	54	57
7	38	43	43	49	48	47	49	49	54	57
8	26	33	37	44	47	40	38	40	47	51
9	25	30	33	37	42	38	9	32	40	44
10	23	24	29	33	39	37	26	28	37	43
11	23	26	28	32	38	37	26	28	37	43
12	--	--	--	29	34	--	--	--	32	40

the first grade in 1981 and were promoted for each successive year through 1985. The mean NCE scores fluctuated; however, there was no significant drop in performance at each higher grade level. This represented sustained performance over time, which broke the pattern of declining test scores at each successively higher grade level. These findings indicated that the academic achievement of students improved over the five-year time period.

2. What was the progression status of students covered by the Pupil Progression Policy over the first five years that the policy has been in effect?

Tables 3 through 7 present data on the number of subjects retained and promoted from 1981 through 1985, along with the CAT mean NCE scores and standard deviations for each of 17 cells of promotional status. An examination of these tables indicated that a total of 1,125 or 34 percent of the students were retained one or more times over this five-year time span. Based upon the Pupil Progression Policy, these students failed to master minimum skills in reading and/or mathematics or did not make the prescribed progress in the reading basal program. Four hundred and eleven (411) subjects or 12 percent were retained at the first grade level, 332 or 10 percent were retained at the second grade level, 378 or 11 percent were retained at the third grade level, and 192 or 6 percent were retained at the fourth grade level. Two hundred forty-one students or 7 percent were retained at more than one grade level, and 265 or 8 percent spent three consecutive years at the same grade level. Sixty-six percent or 2,198 were promoted for each of the five years.

3. Was the academic achievement of promoted subjects significantly higher than that of retained subjects?

Promoted subjects achieved significantly higher mean NCE scores on the CAT than retained students. Table 8 presents the descriptive characteristics of retained and promoted subjects used in the examination of this question. Table 9 presents comparative data for retained and promoted subjects on the same level of the CAT in reading and mathematics. On the CAT, the total reading mean NCE score for promoted subjects was 64.46, and the total mathematics mean NCE score was 68.31 in 1981. The total reading mean NCE score for all retained subjects was 34.48, and the total mathematics NCE score was 41.13. In the spring of 1981, while enrolled in the first grade, those subsequently promoted subjects scored approximately 30 mean NCE points higher in reading and approximately 27 mean NCE points higher in mathematics than those subsequently retained subjects. An examination of student performance on Level 12 of the CAT indicated that promoted students taking the test in 1982 scored 24.2 mean NCE points higher in reading and 18.33 mean NCE points higher in mathematics than students retained in the first grade and taking Level 12 for the first time in 1983. These differences were significant at the .001 level (p .001) with a t value of 18.82 for reading and 15.26 in mathematics. Student performance on Level 13 of the CAT indicated that promoted students taking the test in 1983 scored 9.86 mean NCE points higher in reading and 2.75 mean NCE points higher in mathematics than students retained in the second grade and taking Level 13 for the first time in 1984. These differences were significant at the .01 level (p .01) with a t value of 9.82 in reading and 2.71 in mathematics. Student performance on Level 14 of the CAT indicated that promoted students taking the test in 1984 scored 12.12 mean NCE points higher in reading and 10.17 mean NCE points higher in mathematics than students retained in the third grade and taking Level 14 for the first time in 1985. These differences were significant at the .01 level (p .01), with a t value of 12.34 in reading and 9.00 in mathematics.

TABLE 2

MEAN NORMAL CURVE EQUIVALENT (NCE) SCORES ON THE CALIFORNIA ACHIEVEMENT TEST (CAT) FOR STUDENTS PROMOTED FOR FIVE CONSECUTIVE YEARS

READING

	1980-81	1981-82	1982-83	1983-84	1984-85
Grade	1st	2nd	3rd	4th	5th
N	2195	2198	2198	2198	2198
Mean NCE	64.46	62.02	57.33	58.09	61.04
SD	16.01	17.23	16.40	16.09	18.36

MATHEMATICS

	1980-81	1981-82	1982-83	1983-84	1984-85
Grade	1st	2nd	3rd	4th	5th
N	2194	2198	2193	2198	2195
Mean NCE	68.31	63.37	61.33	63.67	65.08
SD	17.50	15.75	16.47	18.35	18.61

TABLE 3

MEAN NCE SCORES AND STANDARD DEVIATIONS
BY PROGESSION PATTERN
1981 - FIRST GRADE

Progression Pattern	N	%	Reading		Mathematics	
			Mean NCE	SD	Mean NCE	SD
1 2 3 4 5 6	2198	66.3	64.46	16.01	68.31	17.50
1 1 2 2 2 3	4	.1	15.25	18.19	15.50	9.43
1 1 2 2 3 3	9	.2	26.89	18.02	24.33	10.90
1 1 2 2 3 4	93	3.0	27.60	18.17	30.33	19.60
1 1 2 3 3 4	49	1.5	26.65	13.14	25.82	16.17
1 1 2 3 4 4	29	1.0	29.76	17.37	35.68	16.81
1 1 1 2 3 4	227	7.0	31.75	14.71	37.06	16.27
1 2 2 2 3 4	18	.5	37.56	17.49	45.89	20.00
1 2 2 3 3 4	23	.7	46.74	12.43	46.48	16.10
1 2 2 3 4 4	20	.6	40.60	17.98	38.70	21.44
1 2 2 3 4 5	165	5.0	45.22	15.68	48.52	15.74
1 2 3 3 3 4	7	.2	37.00	11.62	46.00	16.60
1 2 3 3 4 4	14	.4	45.71	15.53	46.86	16.22
1 2 3 3 4 5	285	8.6	49.28	15.57	54.51	18.10
1 2 3 4 4 4	9	.2	48.67	25.31	52.00	27.96
1 2 3 4 4 5	120	3.6	51.52	16.23	55.73	18.35
1 2 3 4 5 5	46	1.3	54.48	16.49	54.72	16.04

TABLE 4

MEAN NCE SCORES AND STANDARD DEVIATIONS
BY PROGESSION PATTERN
1982 - SECOND GRADE

Progression Pattern	N	%	Reading		Mathematics	
			Mean NCE	SD	Mean NCE	SD
1 2 3 4 5 6	2198	66.3	62.02	17.23	63.37	15.75
1 1 2 2 2 3	5	.1	46.60	13.96	46.20	6.57
1 1 2 2 3 3	9	.2	49.44	17.75	46.44	13.50
1 1 2 2 3 4	97	3.0	48.67	15.11	57.50	17.85
1 1 2 3 3 4	49	1.5	54.96	13.50	60.57	16.14
1 1 2 3 4 4	30	1.0	53.80	17.63	63.37	15.79
1 1 1 2 3 4	223	7.0	57.86	14.30	66.66	16.81
1 2 2 2 3 4	17	.5	25.88	11.86	33.18	10.47
1 2 2 3 3 4	23	.7	28.13	14.36	41.04	15.16
1 2 2 3 4 4	20	.6	29.75	12.26	34.15	11.06
1 2 2 3 4 5	165	5.0	34.41	11.24	41.25	14.39
1 2 3 3 3 4	7	.2	41.57	9.31	40.29	22.31
1 2 3 3 4 4	14	.4	36.79	17.01	36.64	22.87
1 2 3 3 4 5	283	8.6	41.91	11.90	49.56	16.18
1 2 3 4 4 4	10	.2	45.80	10.10	44.40	12.04
1 2 3 4 4 5	120	3.6	46.86	12.42	49.72	15.98
1 2 3 4 5 5	47	1.3	47.96	18.76	49.04	16.23

TABLE 5

MEAN NCE SCORES AND STANDARD DEVIATIONS
BY PROGESSION PATTERN
1983 - THIRD GRADE

Progression Pattern	N	%	Reading		Mathematics	
			Mean NCE	SD	Mean NCE	SD
1 2 3 4 5 6	2198	66.3	57.33	16.40	61.33	16.47
1 1 2 2 2 3	5	.1	22.00	5.83	35.00	5.79
1 1 2 2 3 3	9	.2	30.25	13.04	30.67	21.18
1 1 2 2 3 4	98	3.0	35.16	12.28	41.50	16.08
1 1 2 3 3 4	49	1.5	40.24	11.83	48.45	18.00
1 1 2 3 4 4	29	1.0	47.17	18.35	57.41	13.08
1 1 1 2 3 4	232	7.0	48.95	13.33	56.00	16.05
1 2 2 2 3 4	17	.5	35.44	13.04	45.41	18.26
1 2 2 3 3 4	22	.7	41.23	8.76	52.36	10.34
1 2 2 3 4 4	20	.6	48.25	17.65	53.10	17.22
1 2 2 3 4 5	165	5.0	53.75	12.65	61.30	14.21
1 2 3 3 3 4	7	.2	23.00	14.53	31.00	9.56
1 2 3 3 4 4	14	.4	37.08	10.39	33.36	14.00
1 2 3 3 4 5	285	8.6	35.35	12.33	40.42	14.63
1 2 3 4 4 4	9	.2	45.50	12.97	50.00	17.83
1 2 3 4 4 5	120	3.6	38.71	11.14	44.79	14.22
1 2 3 4 5 5	47	1.3	41.00	15.03	46.34	15.54

TABLE 6

MEAN NCE SCORES AND STANDARD DEVIATIONS
BY PROGESSION PATTERN
1984 - FOURTH GRADE

Progression Pattern	N	%	Reading		Mathematics	
			Mean NCE	SD	Mean NCE	SD
1 2 3 4 5 6	2198	66.3	58.09	16.09	63.67	18.35
1 1 2 2 2 3	5	.1	30.60	10.01	49.20	13.75
1 1 2 2 3 3	9	.2	40.56	20.35	55.89	16.91
1 1 2 2 3 4	99	3.0	45.61	15.17	57.07	15.85
1 1 2 3 3 4	49	1.5	33.33	12.88	34.71	15.66
1 1 2 3 4 4	29	1.0	43.62	13.58	47.87	14.46
1 1 1 2 3 4	230	7.0	45.52	15.03	51.21	16.93
1 2 2 2 3 4	17	.5	55.59	13.71	63.17	17.25
1 2 2 3 3 4	23	.7	32.13	8.09	41.48	13.52
1 2 2 3 4 4	20	.6	45.75	13.83	53.20	17.45
1 2 2 3 4 5	165	5.0	46.59	12.08	55.92	14.66
1 2 3 3 3 4	7	.2	28.79	9.23	41.71	5.79
1 2 3 3 4 4	14	.4	43.07	14.58	50.92	19.07
1 2 3 3 4 5	285	8.6	47.69	15.44	58.93	15.66
1 2 3 4 4 4	9	.2	45.78	16.78	35.20	11.88
1 2 3 4 4 5	120	3.6	35.26	14.27	39.27	14.11
1 2 3 4 5 5	46	1.3	43.04	17.88	42.96	15.85

TABLE 7

MEAN NCE SCORES AND STANDARD DEVIATIONS
BY PROGESSION PATTERN
1985 - FIFTH GRADE

Progression Pattern	N	%	Reading		Mathematics	
			Mean NCE	SD	Mean NCE	SD
1 2 3 4 5 6	2198	66.3	61.04	18.36	65.08	18.61
1 1 2 2 2 3	5	.1	49.00	19.87	64.20	15.61
1 1 2 2 3 3	9	.2	31.67	6.63	31.00	14.27
1 1 2 2 3 4	98	3.0	43.25	15.90	49.91	15.73
1 1 2 3 3 4	49	1.5	45.14	14.66	53.48	15.42
1 1 2 3 4 4	30	1.0	37.77	10.10	40.40	12.87
1 1 1 2 3 4	233	7.0	44.63	16.54	49.34	18.34
1 2 2 2 3 4	18	.5	43.78	15.58	52.56	20.21
1 2 2 3 3 4	23	.7	51.96	17.02	64.22	16.09
1 2 2 3 4 4	20	.6	34.20	1074	36.65	10.68
1 2 2 3 4 5	165	5.0	45.65	12.72	53.19	16.22
1 2 3 3 3 4	7	.2	41.43	13.76	50.86	12.21
1 2 3 3 4 4	14	.4	39.64	10.55	37.93	19.17
1 2 3 3 4 5	283	8.6	46.28	14.38	54.27	17.41
1 2 3 4 4 4	10	.2	39.00	13.76	38.60	15.72
1 2 3 4 4 5	120	3.6	47.45	14.19	54.93	15.93
1 2 3 4 5 5	47	1.3	41.66	15.66	43.32	16.36

TABLE 8

DESCRIPTIVE CHARACTERISTICS OF PROMOTED AND RETAINED SUBJECTS
ENTERING FIRST GRADE IN 1980-81

	N	Sex				Ethnicity								*CA
		Male		Female		Black		White		Spanish		Other		Sept 1981
		N	%	N	%	N	%	N	%	N	%	N	%	
Promoted Five Consecutive Years	2199	1000	45	1199	55	2036	93	149	6	11	.5	3	.1	6.5
One Time First Grade Retainees	192	124	65	68	35	185	96	7	4	--	--	--	--	6.4
One Time Second Grade Retainees	208	122	59	86	41	200	96	8	4	--	--	--	--	6.5
One Time Third Grade Retainees	299	176	59	123	41	282	94	15	5	2	.7	--	--	6.6

* CA - Chronological Age

4. Was there a grade level at which retention resulted in greater academic achievement?

Overall, promoted subjects scored higher than retained subjects on each of the three levels of the CAT in reading and mathematics. Retained subjects started out in the first grade at a significantly lower level than promoted subjects. Gains made during retention at the first and second grade levels were greater than gains made during retention at the third grade level, where performance by retained subjects approached the performance of promoted subjects on the CAT. However, at the fourth grade level the difference in the performance of retained and promoted subjects increased. This finding indicated that retention up to the third grade was more beneficial than retention at the fourth grade. An examination of one cohort of retained subjects further supports the finding that retention in lower grades results in increased performance. Table 10 presents the mean NCE scores and standard deviations for subjects retained twice at the first grade level. These subjects showed growth over each of the five years from 1981-85. (The author is not advocating this pattern of retention. However, this provides implications for educational programming for students beginning school with low academic skills). This example typifies the performance of retained subjects in this investigation. They tended to start out at a much lower level than their promoted counterparts. Although, they made greater gains, their achievement is at a lower level.

5. Did participation in the Chapter I remedial reading and/or mathematics program, along with another year of regular classroom instruction, result in improved academic achievement?

Ninety-five percent of all retained subjects received remedial instruction in the Chapter I Program. The data in Tables 9 and 10 provide evidence that remedial instruction in the Chapter I Program, along with an additional year of instruction in the regular classroom result in gains on the CAT in reading and mathematics. Subjects retained in the first grade for one year gained approximately 4 mean NCE points in reading when they took Level 12 on the CAT, and gained approximately 9 mean NCE points when they took Level 13. Gains also occurred on the mathematics section of the CAT. Those subjects retained for two years in the first grade, and receiving Chapter I services for this time period, demonstrated greater gains when they took Level 12 of the CAT. They gained approximately 15 mean NCE points in reading and approximately 14 mean NCE points in mathematics.

DISCUSSION

This investigation examined the long-term effects of the Pupil Progression Policy on the academic achievement of students in a large urban southeastern school system. The population of this school system is rather homogeneous, wherein 90 percent of the students are black and 80 percent fall in the low socio-economic category. Subjects used in this study were all students entering first grade in 1980-81, who remained in the school system for five consecutive years, and were not enrolled in the Program for Exceptional Children, with the exception of speech and language. The data source was school system records of CAT, mean NCE reading and mathematics scores from 1981 through 1985.

The results of this study indicated that the overall academic achievement of subjects improved in both reading and mathematics over the specified time period. Approximately

TABLE 9

COMPARATIVE DATA FOR RETAINED AND PROMOTED SUBJECTS
ON THE SAME LEVEL OF THE CAT

First Grade-Level 11

	Reading				Mathematics			
	Test Date	N	Mean NCE	SD	Test Date	N	Mean NCE	SD
Promoted	1981	2195	64.46	16.01	1981	2194	68.31	17.50
Retained (one or more years over a five year period	1981	1121	34.48	16.50	1981	1115	41.13	17.55

Second Grade-Level 12

	Reading						Mathematics					
	Test Date	N	Mean NCE	SD	t-Value	p	Test Date	N	Mean NCE	SD	t-Value	p
Promoted	1982	2198	62.02	17.23			1982	2198	63.37	15.75		
Retained (1st grade)	1983	190	37.82	14.13	18.82	.001	1983	190	45.04	17.48	15.26	.001

Third Grade-Level 13

	Reading						Mathematics					
	Test Date	N	Mean NCE	SD	t-Value	p	Test Date	N	Mean NCE	SD	t-Value	p
Promoted	1983	2198	57.33	16.40			1983	2198	61.33	16.47		
Retained (2nd grade)	1984	208	47.47	15.41	9.82	.01	1984	296	58.58	15.87	2.71	.01

Fourth Grade-Level 14

	Reading						Mathematics					
	Test Date	N	Mean NCE	SD	t-Value	p	Test Date	N	Mean NCE	SD	t-Value	p
Promoted	1984	2198	58.09	16.07			1984	2198	63.67	18.35		
Retained (3rd grade)	1985	299	45.97	14.27	12.34	.01	1985	297	53.50	17.80	9.00	.01

34 percent of the subjects have been retained one or more times since the implementation of this policy. An examination of performance on the same level of the CAT, by retained and promoted subjects, indicates that promoted subjects obtain higher mean NCE scores than retained subjects in both reading and mathematics. Retained subjects began with lower achievement test scores, and they remained lower over the five-year period. However, gains in NCE scores did occur. This finding suggested that an additional year in the same grade with regular classroom instruction and Chapter I remedial instruction resulted in academic growth.

Implications for Educational Practice

Although subjects in this investigation made academic gains, as measured by the CAT, a larger issue highlighted by this investigation is the progression status of students covered by this policy. Any policy which causes approximately 34 percent of 3,313 students to stumble early in their educational careers warrants careful re-examination. Current practice requires students to master 100 percent of a limited number of academic skills. This practice makes no provision for individual differences. However, in view of the percentage of students not meeting minimum progression requirements, policy revisions appear to be in order. A suggested change would consist of increasing the number of minimum skills at each grade level and requiring students to master 80 percent of this increased number of academic skills. Such a practice would make provisions for individual differences in learning styles and development, without lowering the standards of academic competence expected within the school system. Currently, three of the minimum skills at the first grade level rely heavily upon auditory functioning: (1) associate sounds with initial consonants in words, (2) associate sounds with initial diagraphs and initial two-letter blends in words and, (3) demonstrate understanding of inflectional endings (s, ed, ing). The student demonstrating auditory weaknesses may be unable to master these specific skills; but, he/she may be able to use context clues or a whole-word approach to decode words, which is the established goal. A second suggestion for policy revision includes a holistic approach. Mastery of a specific percentage (e.g., 80 percent) of all skills at a specified grade level reading or mathematics basal would serve as the progression requirement instead of discrete individual skills. A policy which incorporates either of these practices would provide students with an opportunity to demonstrate their strengths, as well as their ability to compensate for weaknesses.

Additional considerations for educational practice include the following: An examination of Table 10 indicated that some students require additional time to establish a foundation upon which to build academic skills. It also indicated that once this foundation is in place, consistent academic gains can be made. The establishment of preschool and kindergarten programs which provide structured ongoing, environmental stimulation and language development training would enhance the development of a sound educational foundation. The development of assessment techniques which are sensitive enough to identify preschool students at risk for educational difficulties is needed. There are prerequisite skills students must have before they are capable of acquiring basic academic skills. When academic skills are introduced before these prerequisites are clearly in place, the amount of time required to establish them is increased. However, when prerequisites are in place prior to the introduction of academic skills, students make consistent progress over a shorter period of time.

A third implication of this study for educational practice includes pedagogical considerations. A certain amount of variance in student performance is attributable to the quality of instruction he receives. The establishment of clear goals, along with realistic expectations for academic growth and the provision of appropriate learning experiences are key ingredients required for the academic progress of all students.

Alternative teaching strategies should be identified which are appropriate for students demonstrating academic weaknesses. In addition, procedures must be implemented to assure that good teaching practices are being used in all classrooms.

In conclusion, this investigation raised numerous questions about the state of retained students. Future research in this area should focus upon the effects of retention on social adjustment and self-concept. Also, systematic observations should be completed to determine specific pedagogical techniques which enchance the acquisition of basic academic skills.

TABLE 10

CAT PERFORMANCE OF STUDENTS RETAINED TWICE
IN THE FIRST GRADE

Reading

	1981	1982	1983	1984	1985
Test Level	11	11	11	12	13
N	227	233	231	230	234
Mean NCE	31.75	57.86	48.95	45.52	44.63
SD	14.71	14.30	13.33	15.03	16.54

Mathematics

	1981	1982	1983	1984	1985
Test Level	11	11	11	12	13
N	227	234	232	232	233
Mean NCE	37.06	66.66	56.00	51.21	49.34
SD	16.27	16.81	16.05	16.93	18.34

REFERENCES

Holmes, C. J. The fourth R: Retention. Journal of Research and Development in Education, 1983, 17, 1-6.

Kerner, R. L. The effect of retention on achievement. New Jersey: Kean College of New Jersey, 1982, (ED 216309).

Niklason, L. B. Nonpromotion: A pseudoscientific solution. Psychology in the Schools, 1984, 21, 485-499.